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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LY, ANH VU H

ART UNIT PAPER NUMBER

2616

DATE MAILED: 10/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/939,347

Applicant(s)

HUFFMAN, AMBER D.

Examiner

Anh-Vu H. Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. This communication is in response to applicant's amendment filed August 08, 2006.

Claims 1-18 are pending.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 5-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Baldwin et al (US Patent No. 6,560,448 B1). Hereinafter, referred to as Baldwin.

With respect to claims 1 and 15, Baldwin discloses a method (Fig. 2) comprising:

transmitting data symbols from a media access control layer (MAC) processing element to a second processor (col. 7, lines 44-46 and Fig. 2, for transmission, the MAC device 205 asserts digital data signals to a packet encoder 207, which formulates the data into packets for transmission); and

monitoring a receive signal strength indicator (RSSI) value at the MAC processing element to determine if the data symbols have been completely transmitted from a system transmitter (col. 9, lines 1-9 and Fig. 2, the RFPA 237 asserts a transmit detect signal back to a

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transmit ADC 251 within the baseband processor 203, which provides a corresponding digital feedback signal to the MAC 205. Herein, transmit detect signal indicates the signal strengths of the transmitted digital data signals).

With respect to claim 5, Baldwin discloses that wherein the second processor is a baseband processor (col. 7, lines 44-46 and Fig. 2, for transmission, the MAC device 205 asserts digital data signals to a packet encoder 207. Herein, the packet encoder 207 is the baseband processor).

With respect to claim 6, Baldwin discloses a computer system (Fig. 2) comprising a network controller (203), the network controller including a media access layer (MAC) digital signal processor (DSP) (205) to monitor a receive signal strength indicator (RSSI) value to identify that the transmission of all data symbols from the network controller has been completed (col. 9, lines 1-9 and Fig. 2, the RFPA 237 asserts a transmit detect signal back to a transmit ADC 251 within the baseband processor 203, which provides a corresponding digital feedback signal to the MAC 205. Herein, transmit detect signal indicates the signal strengths of the transmitted digital data signals).

With respect to claim 7, Baldwin discloses that wherein the network controller further comprises a baseband DSP (Fig. 2, packet encoder 207) coupled to the MAC DSP, wherein the MAC DSP begins to monitor the RSSI value after all data symbols have been transmitted from the media access layer DSP to the baseband DSP (col. 9, lines 1-9 and Fig. 2, the RFPA 237

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asserts a transmit detect signal back to a transmit ADC 251 within the baseband processor 203, which provides a corresponding digital feedback signal to the MAC 205. Herein, all digital data signals have been transmitted to the packet encoder 207 for transmission).

With respect to claims 8 and 13, Baldwin discloses that wherein the baseband DSP comprises:

- a baseband state machine (Fig. 2, packet encoder 207);
- a coding element coupled to the baseband state machine (Fig. 2, packet encoder 207); and
- a modulation element coupled to the coding element (Fig. 2, spread 209).

With respect to claim 9, Baldwin discloses that wherein the network controller further comprises:

- a DAC DSP coupled to the baseband DSP (Fig. 2, 211 and 213).
- an ADC DSP coupled to the baseband DSP (Fig. 2, 281 and 283).

With respect to claims 10 and 14, Baldwin discloses that wherein the network controller further comprises:

- a transceiver that transmits the RSSI to the MAC DSP (Fig. 2, ADC 251); and
- an antenna coupled to the transceiver (Fig. 2, 247 and 249).

With respect to claim 11, Baldwin discloses a system input/output (I/O) bus coupled to the network controller (Fig. 2, bus connecting MAC 205 to/from device); a bridge/memory

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controller coupled to the system I/O bus (Fig. 2, not shown but must be presented to control stored data packets); and a processor coupled to the bridge/memory controller (Fig. 2, not shown but must be present to store and retrieve data packets).

With respect to claim 12, Baldwin discloses a network controller (Fig. 2, 203) comprising:

a media access layer (MAC) digital signal processor (DSP) (205) to monitor a receive signal strength indicator (RSSI) value to identify that the transmission of all data symbols from the network controller has been completed (col. 9, lines 1-9 and Fig. 2, the RFPA 237 asserts a transmit detect signal back to a transmit ADC 251 within the baseband processor 203, which provides a corresponding digital feedback signal to the MAC 205. Herein, transmit detect signal indicates the signal strengths of the transmitted digital data signals);

a baseband DSP, coupled to the MAC DSP (207); and

a DAC DSP coupled to the baseband DSP (211 and 213).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 2-4 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin et al (US Patent No. 6,560,448 B1) in view of Wang et al (US Patent No. 6,005,853). Hereinafter, referred to as Baldwin and Wang.

With respect to claims 2-4 and 16-18, Baldwin discloses a wireless communication device (Fig. 2). Baldwin does not disclose determining whether the RSSI value drops below a predetermined threshold; monitoring RSSI value if it is determined that the RSSI value has not dropped below the predetermined threshold and setting one or more timers if it is determined that the RSSI value has dropped below the predetermined threshold. Wang discloses a wireless network access scheme including MAC devices, monitoring RSSI value, and setting a timer when RSSI value falls below a threshold, if the RSSI falls below the threshold, the channel state machine enters a channel \_clear state, referred to as a clear timer (col. 10, lines 23-46). It would have been obvious to one having ordinary skill in the art at the time the invention was made to compare the RSSI value to a threshold and set a timer if the RSSI value falls below the threshold in Baldwin's system, as suggested by Wang, to detect and avoid collisions when there are data need to be transmitted.

#### ***Response to Arguments***

4. Applicant's arguments filed August 08, 2006 have been fully considered but they are not persuasive.

Applicant argues in page 6 that Baldwin fails to disclose a MAC processing element monitoring a RSSI value to determine if data symbols have been completely transmitted from a system transmitter. Examiner respectfully disagrees. Baldwin discloses (col. 9, lines 1-9 and Fig. 2) that the RFPA 237 asserts a transmit detect (TX DET) signal back to a transmit ADC 251

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within the baseband processor 203, which provides a corresponding digital feedback signal to the MAC 205. Herein, the act of receiving the digital feedback signal by the MAC 205 is equivalent to the act of monitoring because the MAC processing element must monitor its inputs to determine whether a signal is arriving. Further, the transmit detect (TX DET) signal indicates the signal strengths of the transmitted digital data signals (RSSI), e.g., high voltage state vs. low voltage state. A low voltage transmit detect signal indicates that transmission already completed since no voltage being detected. Therefore, Baldwin discloses a MAC processing element monitoring a RSSI value to determine if data symbols have been completely transmitted from a system transmitter.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.




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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

avl

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER *w/24/02*